

4. (Once Amended) A method of etching an organic dielectric layer over a substrate, comprising:

placing a hard mask over the organic dielectric layer;

placing a patterned photoresist layer over the hard mask layer;

placing the substrate in an etching chamber;

providing an etchant gas comprising  $\text{NH}_3$  into the etching chamber, wherein the  $\text{NH}_3$  has a flow rate between 5 sccm to 1500 sccm;

generating a plasma from the  $\text{NH}_3$ , which etches the organic dielectric layer; and

simultaneously stripping the photo resist layer during the etching of the organic dielectric layer.

5. The method, as recited in claim 4, further comprising providing  $\text{CH}_3\text{F}$  while providing the etchant gas comprising  $\text{NH}_3$ .

6. The method, as recited in claim 5, wherein the  $\text{CH}_3\text{F}$  has a flow rate between 1 sccm to 50 sccm.

7. The method, as recited in claim 6, further comprising providing an etch with an etchant gas comprising  $\text{CF}_4$ , prior to the step of providing the etchant gas comprising  $\text{NH}_3$ .

8. The method, as recited in claim 7, wherein the etchant gas comprising  $\text{CF}_4$ , further comprises  $\text{C}_4\text{F}_8$ .

9. The method, as recited in claim 8, wherein the etchant gas comprising CF<sub>4</sub> further comprises O<sub>2</sub>.

10. The method, as recited in claim 9, wherein the O<sub>2</sub> has a flow rate of between 3 sccm and 300 sccm.

11. The method, as recited in claim 10, wherein the organic dielectric layer is made of an organic low-k material.

12. (Cancelled)

13. (Once Amended) A method of etching an organic dielectric layer over a substrate, comprising:

placing a hard mask over the organic dielectric layer;

placing a patterned photoresist layer over the hard mask layer;

placing the substrate in an etching chamber;

providing an etchant gas comprising NH<sub>3</sub> into the etching chamber;

generating a plasma from the NH<sub>3</sub>, which etches the organic dielectric layer; and

simultaneously stripping the photo resist layer during the etching of the organic dielectric layer.

14. The method, as recited in claim 1, further comprising providing CH<sub>3</sub>F while providing the etchant gas comprising NH<sub>3</sub>.

15. The method, as recited in claim 14, further comprising providing an etch with an etchant gas comprising  $\text{CF}_4$ , prior to the step of providing the etchant gas comprising  $\text{NH}_3$ .

16. The method, as recited in claim 1, wherein the organic dielectric layer is made of an organic low-k material.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (New) The method, as recited in claim 13, wherein the  $\text{NH}_3$  has a flow rate, wherein the flow rate of  $\text{NH}_3$  is from about 100 sccm to about 1000 sccm.

21. (New) The method, as recited in claim 13, wherein the  $\text{NH}_3$  has a flow rate from about 300 sccm to about 800 sccm.

22. (New) The method, as recited in claim 21, further comprising maintaining the substrate at a temperature between about  $10^\circ\text{C}$  to about  $40^\circ\text{C}$  during etching of the organic dielectric layer.

23. (New) The method, as recited in claim 22, further comprising providing a power input of between about 250 W to about 1000 W.

24. (New) A method of etching an organic dielectric layer disposed below a hardmask layer and over a substrate, comprising:

placing the substrate in an etching chamber;

providing an etchant gas comprising  $\text{NH}_3$  into the etching chamber with a flow rate from about 300 sccm to about 800 sccm;

generating a plasma from the  $\text{NH}_3$ , which etches the organic dielectric layer; and

maintaining the substrate at a temperature between about  $10^\circ\text{C}$  to about  $40^\circ\text{C}$  during the etching of the organic dielectric layer.